

CLAIMS

1.

A process for producing an olefin polymer,
 characterized by carrying out solution polymerization of
 5 ethylene and one or more kinds of monomers selected from α -
 olefins at a temperature ranging from 120 to 300°C, in the
 presence of a catalyst for olefin polymerization composed
 of:

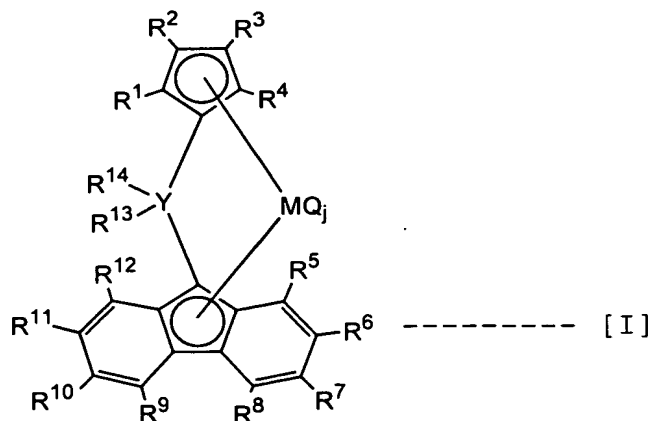
(A) a bridged metallocene compound represented by a
 10 general formula [I] described below, and

(B) at least one or more kinds of compounds selected
 from the group consisting of

(b-1) an organoaluminum oxy-compound,

(b-2) a compound which forms an ion pair in a reaction
 15 with the bridged metallocene compound (A), and

(b-3) an organoaluminum compound,



(wherein R^1 , R^2 , R^3 , R^4 , R^5 , R^8 , R^9 , and R^{12} are each selected from hydrogen atom, hydrocarbon group, and silicon-containing group, and may be identical or different, or neighboring groups may be combined to form a ring structure.

5 R^6 and R^{11} are each identical atoms or identical groups selected from hydrogen, hydrocarbon group, and silicon-containing group, and may be combined to form a ring structure; R^7 and R^{10} are each identical atoms or identical groups selected from hydrogen, hydrocarbon group, and
10 silicon-containing group, and may be combined to form a ring structure; R^6 , R^7 , R^{10} and R^{11} are not simultaneously hydrogen atoms. R^{13} and R^{14} are each aryl group, and may be identical or different; M represents Ti, Zr or Hf, and is preferably Zr or Hf; Y represents carbon or silicon; Q represents
15 halogen, hydrocarbon group, anionic ligand, or a lone electron pair, and may be selected in an identical or different combination of neutral ligands capable of coordination; and j is an integer of 1 to 4.)

20 2.

The process for producing an olefin polymer according to claim 1, wherein R^6 and R^{11} are an identical group

selected from hydrocarbon groups and silicon-containing groups, and R^7 and R^{10} are an identical group selected from hydrocarbon groups and silicon-containing groups.